

RAS 14701

DOCKETED
USNRC

Office of the Secretary of the Commission
United States Nuclear Regulatory Commission
Washington, D.C. 20555-0001
Attention: Rulemaking and Adjudications Staff
Via email to HEARING DOCKET@NRC.GOV
Re: Indian Point Relicensing
November 30, 2007

November 30, 2007 (9:47am)

OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

**PETITION FOR LEAVE TO INTERVENE, REQUEST FOR HEARING AND
CONTENTIONS OF RICHARD BLUMENTHAL, ATTORNEY GENERAL OF
CONNECTICUT, FOR THE LICENSE RENEWAL PROCEEDING FOR INDIAN
POINT NUCLEAR GENERATING UNIT NOS. 2 AND 3, DPR-26 AND DPR-64**

I. INTRODUCTION AND EXECUTIVE SUMMARY

On behalf of the State of Connecticut, Attorney Richard Blumenthal (Connecticut Attorney General or "Petitioner") petitions to intervene pursuant to 10 C.F.R. § 2309(d) and (e), and requests the U.S. Nuclear Regulatory Commission ("NRC" or "Commission") to grant an adjudicatory hearing pursuant to 10 C.F.R. § 2309(a), on Entergy Nuclear Operations, Inc.'s ("Entergy's") application for renewal of its license to operate the Indian Point nuclear power plant. He files this petition pursuant to the notice of opportunity for a hearing published on August 1, 2007 (72 FR 42134), and extended on October 1, 2007, (72 FR 55834).

Numerous parties have filed petitions to intervene and filed contentions in this matter including the New York Attorney General's Office. Pursuant to 10 CFR § 2.309(f)(3), the Connecticut Attorney General hereby supports and adopts the contentions of the Attorney General of New York filed November 30, 2007.

Through its application, Entergy seeks approval to operate the Indian Point plant for an additional 20 years past its expiration date. Entergy and the NRC must fully address the risk of a severe accident in the Indian Point spent fuel pool and comply with all federal laws for the protection of public health, safety, and the environment.

TEMPLATE = SEU-037

SEU-02

The risks of a 20 year license extension are very serious. Already, vast quantities of highly radioactive spent nuclear fuel are stored in poorly protected fuel pools outside of the containment domes. Creating ever more dangerous radioactive waste for 20 additional years, and continuing to cram it into inadequately protected storage pools, will increase the risk of a potential catastrophic release of radiation. Further, the evacuation protocols for Indian Point are demonstrably inadequate. Operating the plant for twenty more years in the face of increasing population pressures and inadequate transportation infrastructure means that there will be more people to evacuate over an already overburdened road and rail system. The inadequate evacuation plan will become more inadequate over the years to come. The NRC has not evaluated this known and foreseeable risk in its consideration of the reasonableness of renewing these licenses.

As detailed below in the Petitioner's contention, Entergy's license renewal application fails to comply with the National Environmental Policy Act, 42 U.S.C. § 4321, *et seq.* ("NEPA"). Specifically, the continued storage of spent fuel in the spent fuel pools at Indian Point poses a significant and reasonably foreseeable environmental risk of a severe fire and offsite release of a large amount of radioactivity. Entergy's and NRC's failure to take account of this threat is inconsistent with NEPA's requirement that environmental decisions must contain an evaluation of those aspects of a proposed action that will affect the quality of the human environment "in a significant manner or to a significant extent not already considered." *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 374 (1989) ("*Marsh*"). Entergy's application also fails to satisfy the Atomic Energy Act's ("AEA"), 42 U.S.C. § 2233(d), fundamental requirement to ensure safe operation of the Indian Point plant during the license renewal term because it does

not include adequate design measures to prevent the occurrence of a pool fire or to reduce its consequences.

By the time the current license term expires, Indian Point will have accumulated thousands of spent fuel assemblies in its fuel pools. If a fuel pool were to suffer a loss of water sufficient to uncover the tops of the fuel assemblies, the buildup of heat could cause some of the fuel to ignite within hours. The fire could then propagate within the pool, and the burning of fuel assemblies could lead to a large atmospheric release of radioactive isotopes, contaminating a large land area for decades, with heavy cost to public health and the economy. The potential of such an accident clearly falls within the range that NRC considers reasonably foreseeable. Therefore it is not a speculative or worst-case event. Pool water could also be lost if the pool were the subject of an intentional attack, a risk that can no longer be ignored after the attacks of September 11, 2001. Yet, neither Indian Point nor the NRC has addressed the safety and environmental impacts of a pool fire in any EIS.

Although it has long been known that spent fuel pools could potentially suffer serious accidents, new scientific information on such risks has developed in recent years, including technical studies by the Commission's own staff, independent expert analyses, and a study by the National Academy of Sciences. Increased appreciation for the potential of an intentional attack on nuclear facilities has also changed the consideration of reasonably foreseeable risk. Despite the NRC's acknowledgment of concern about this risk, and despite the known vulnerability of fuel pools to fire if they are drained, the agency has not addressed the potential safety and environmental impacts of attacks involving fuel pools. NRC regulations require that prior to licensing Indian Point, the

NRC must prepare an EIS that addresses significant new information regarding the safety and environmental impacts of a pool fire. This information was not available to the NRC when earlier EISs relevant to license renewal were prepared. Under NEPA, the EIS must also weigh reasonable available alternatives for avoiding or mitigating a pool fire, including safer methods of on-site storage.

The AEA also requires the NRC to protect against the unreasonable risk of a pool fire in its license renewal decision for Indian Point. (*Petition for Emergency and Remedial Action*, CLI-78-6, 7 NRC 400, 404(1978) (*Petition for Emergency and Remedial Action*)). Therefore, the NRC must thoroughly and accurately evaluate the impacts resulting from a fire, accident or attack on the stored spent nuclear fuel (SNF) at the site, as those risks will be profoundly increased by the continued operation of the facility over an additional twenty years. In addition, since Indian Point was originally licensed, there has been a major increase in population in the potential emergency evacuation zone. As a result, the NRC must analyze the impact of an accident or attack in the context of a realistic evacuation plan covering areas of both Connecticut and New York. Unless the evaluation proves convincingly that all of these risks can and will be overcome, NRC must deny the relicensing.

II. Interests of Petitioner

Petitioner, Richard Blumenthal, Attorney General of Connecticut, ("Petitioner"), resides in Greenwich, Connecticut and brings this petition in his capacity as the chief legal officer representing the legal interests of Connecticut residents. The emergency planning area for Indian Point includes plans covering both a 10-mile radius emergency planning zone ("EPZ") and a separate 50-mile radius ingestion pathway EPZ. The 50-

mile radius EPZ includes substantial portions of the State of Connecticut, including its largest city, Bridgeport, and its most populous county, Fairfield.

Therefore, because the Indian Point EPZ plans affect significant portions of the State of Connecticut, including Fairfield County, Petitioner, individually, and in his capacity as chief legal officer of the state, is affected and aggrieved by the continued operation of Indian Point and any potential 20 year extension.

III. Standing of Petitioner

The Attorney General has standing to intervene in a proceeding involving the safety of pool storage of spent fuel at Indian Point. Specifically, Section 189a of the AEA, 42 U.S.C. § 2239(a)(1), provides that:

In any proceeding under this Act, for the granting, suspending, revoking, or amending of any license. . .the Commission shall grant a hearing upon the request of any person whose interest may be affected by the proceeding, and shall admit any person as a party to such a proceeding.

Furthermore, Petitioner also has standing under 10 C.F.R. § 2.309(d)(2) because governmental entities may intervene as of right in proceedings affecting nuclear power stations “within its boundaries. . . .” While, as noted above, Indian Point is approximately 12 miles from the Connecticut border, its area of influence, as defined by its ingestion pathway zone, includes almost a third of Connecticut. Even if the Commission concludes that 10 C.F.R. § 2.309(d)(2) does not apply, the proximity of the facility and the fact that many of the consequences of an accident at Indian Point would be felt in Connecticut argue strongly that the Petitioner has standing under 10 C.F.R. § 2.309(d)(4), Discretionary Standing.

Entergy and the NRC have not adequately informed the public regarding the risks of a severe accident in the Indian Point spent fuel pools nor have they implemented

adequate design measures to avoid such an accident. Therefore, the Attorney General seeks enforcement of federal laws requiring the preparation of an EIS regarding the risks of storing spent fuel in the Indian Point pool, as well as the imposition of design measures for avoiding such accidents. If granted, this relief would improve the level of protection of the environment and public health and safety of the residents of Connecticut.

IV. Indian Point

The Indian Point Energy Center (“Indian Point”) is located in the Town of Buchanan, New York. The Indian Point facility currently is owned by Entergy Nuclear Northeast, a licensee of the NRC.

The Indian Point nuclear compound contains three reactors: Indian Point Unit 1, completed in 1962, but retired in 1974 after spending over half its service life out of service for repairs; Indian Point Unit 2, which received an operating license in 1973; and Indian Point Unit 3, licensed in 1975. The Indian Point Unit 2 and Unit 3 reactors remain in operation today, as do the three separate spent fuel pools for Unit 1, Unit 2, and Unit 3. As the NRC, the Federal Emergency Management Agency (FEMA), and the Department of Homeland Security (DHS) have all recognized, Indian Point is located in one of the most densely populated regions of the United States. Approximately 20 million Americans live, work, or travel within 50 miles of the Indian Point facility.

As described in a publication of the United States Government Accountability Office (“GAO”) submitted before the Subcommittee on National Security, Emerging Threats and International Relations on March 10, 2003, (“GAO Report”), there are serious concerns regarding “problems in emergency preparedness [for Indian Point that]

remain after being repeatedly identified as needing attention.” (GAO Report, pp. 14-15.) This very sobering report documents how, beginning in 2001, a previous report by the GAO noted that “NRC had identified a number of emergency preparedness weaknesses at Indian Point 2 that had gone largely uncorrected. For example, in 1998 and again in 1999, NRC identified several communication weaknesses, including delays in activating the pagers used to alert the plant’s staff about an emergency.” (GAO Report, p. 3.)

The GAO’s testimony continued with an exhaustive discussion of the history of emergency response failures at Indian Point and concluded as follows:

In reviewing NRC’s reports on its on-site inspections and evaluations of the plant’s emergency preparedness exercises or drills completed since we issued our 2001 report, we found that the facility’s emergency preparedness program has continued to experience problems or weaknesses. For example, NRC reported that, in an emergency exercise conducted last fall, the facility gave out unclear information about the release of radioactive materials, which also happened during the February 2000 event. In addition, NRC reported that several actions to correct previously identified weaknesses had not been completed. For example, NRC noted that the timely and accurate dissemination of information was identified as a weakness in the fall 2002 exercise and had been documented previously in drill critique and condition reports.

(GAO Report, p. 12.)

IV. STATUTORY AND REGULATORY FRAMEWORK

The two statutes that govern this hearing request and contention petition are NEPA and the AEA. The AEA sets minimum standards for safe and secure operation of nuclear facilities, while NEPA requires NRC to consider and attempt to avoid or mitigate significant adverse environmental impacts of licensing those facilities. Although the statutes have some overlapping concerns, they establish independent requirements.

Limerick Ecology Action v. NRC, 869 F.2d 719, 729-30 (3rd Cir. 1989). NEPA goes

beyond the AEA, requiring the consideration of alternatives to reduce or avoid adverse environmental impacts of NRC licensing actions. *Id.*, citing 10 C.F.R. § 5 1.71 (d)?

A. Atomic Energy Act Safety Requirements

The AEA prohibits the NRC from issuing a license to operate a nuclear power plant if it would be “inimical to the common defense and security or to the health and safety of the public.” 42 U.S.C. § 2133(d). Public safety is “the first, last, and a permanent consideration in any, decision on the issuance of a construction permit or a license to operate a nuclear facility. “Petition for Emergency and Remedial Action, 7 NRC at 404, *citing Power Reactor Development Corp. v. International Union of Electrical Radio and Machine Workers*, 367 U.S. 396, 402 (1961) (“*Power Reactor Development Corp.*”).

NRC regulations also provide that a nuclear power plant must be designed in light of accidents that are “anticipated during the life of the facility.” See 10 C.F.R. § 50.34(a)(4), which provides that a construction permit application for a nuclear power plant must include: a preliminary analysis and evaluation of the design and performance of structures, systems, and components of the facility with the objective of assessing the risk to public health and safety resulting from operation of the facility and including determination of the margins of safety during normal operations and transient conditions anticipated during the life of the facility, and the adequacy of structures, systems, and components provided for the prevention of accidents and the mitigation of the consequences of accidents. These “anticipated” accidents, against which nuclear power plants must be designed, are called “design-basis accidents.” See NUREG-14337, Generic Environmental Impact Statement for License Renewal of Nuclear Plants at 5-1

(1996) (“License Renewal GEIS”). Design-basis accidents include low-frequency but credible events. *Id.* at 5-2. In determining which types of accidents constitute design-basis accidents and therefore must be protected against in a nuclear plant’s design, the NRC sets a “threshold” based on probability of the accident. The NRC has held that reactor core accidents with a “realistic probability” of at least one in ten million per year must be included in the design-basis.

B. NEPA

The second statute that governs this proceeding is the National Environmental Policy Act, 42 U.S.C § 4321, *et seq.* (“NEPA”). NEPA mandates that federal agencies involved in activities that may have a significant impact on the environment must complete a detailed statement of the environmental impacts and project alternatives.

NEPA provides, in pertinent part, as follows:

The Congress authorizes and directs that, to the fullest extent possible . . .

(2) all agencies of the Federal Government shall -- . . .

(C) include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on --

(i) the environmental impact of the proposed action,

(ii) any adverse environmental effects which cannot be avoided should the proposal be implemented,

(iii) alternatives to the proposed action,

(iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and

(v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.

42 U.S.C. § 4332.

NEPA directs that federal agencies, such as the NRC, must study certain issues and that the reviewing agency must take a “hard look” at these issues, but does not direct what result an agency must reach. Federal appellate courts have been very clear, that NEPA is an important federal law and compliance is mandatory. “NEPA was created to ensure that agencies will base decisions on detailed information regarding significant environmental impacts and that information will be available to a wide variety of concerned public and private actors. *Morongo Band of Mission Indians v. Federal Aviation Administration*, 161 F.3d 569, 575 (9th Cir. 1998)” (quoted in *Mississippi River Basin Alliance v. Westphal*, 230 F.3d 170, 175 (5th Cir. 2000)).

Thus, the fundamental goal of an evaluation under NEPA is to require responsible government agencies involved with a given project to undertake a careful and thorough analysis of the need for that project and its impacts before committing to proceed with the project. As the Tenth Circuit has held:

The purpose of NEPA is to require agencies to consider environmentally significant aspects of a proposed action, and, in so doing, let the public know that the agency's decisionmaking process includes environmental concerns. *Baltimore Gas & Elec. Co. v. Natural Resources Defense Council*, 462 U.S. 87, 97, 76 L. Ed. 2d 437, 103 S. Ct. 2246 (1983); *Sierra Club v. United States Dep't of Energy*, 287 F.3d 1256, 1262 (10th Cir. 2002).

Utahns For Better Transportation v. United States Dept. of Transp., 305 F.3d 1152, 1162 (10th Cir. 2002).

As the District of Columbia Circuit has held:

“NEPA was intended to ensure that decisions about federal actions would be made only after responsible decision-makers had fully adverted to the environmental consequences of the actions, and had decided that the public benefits flowing from the actions outweighed their environmental

costs." *Jones v. District of Columbia Redevelopment Land Agency*, 162 U.S. App. D.C. 366, 499 F.2d 502, 512 (D.C. Cir. 1974). . . .

Illinois Commerce Com. v. Interstate Commerce Com., 848 F.2d 1246, 1259 (D.C. Cir. 1988).

It is not only the government decision-makers who are to be served by an EIS, but the citizens of this nation as well. As one court noted: "The purpose of an EIS is to 'compel the decision-maker to give serious weight to environmental factors' in making choices, and to enable the public to 'understand and consider meaningfully the factors involved.' *County of Suffolk [v. Secretary of Interior]*, 562 F.2d at 1375 (citing *Sierra Club v. Morton*, 510 F.2d 813, 819 (5th Cir. 1975))." *Town of Huntington v. Marsh*, 859 F.2d 1134, 1141 (2d Cir. 1988)(emphasis added.)

V. The Connecticut Attorney General Submits the Following Contentions

The proposed 20 year license extension for this facility threatens major adverse consequences. As the New York Attorney General's Office and other parties have commented, extending the useful life of aging infrastructure is a process fraught with difficulties. While a catastrophic bridge failure can have deadly consequences for the motorists on the structure at that moment, a major systems failure at an aging nuclear power station can have vastly greater consequences over a much larger area. The problems inherent in significantly extending the useful life of a facility that was designed to operate for a set period of time are manifold and extremely problematic. These concerns are accentuated by the fact that the plant operators have an unfortunate history, as described in the GAO Report, of failing to meet accepted operational standards. NRC must closely scrutinize this application to determine if it is even possible for a facility

with its lengthy history of systems failures to be granted an additional 20 years operation past its original design.

A. Applicable Legal Standards

Proposed contentions must satisfy six requirements of 10 C.F.R. § 2.309(f)(1).

This rule ensures that “full adjudicatory hearings are triggered only by those able to proffer at least some minimal factual and legal foundation in support of their contentions.” *Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2, and 3)*, 49 N.R.C. 328, 334 (1999).

Section 2.309(f)(1) requires the following:

1. Specifically State the Issue of Law or Fact Raised

Section 2.309(f)(i) requires “a specific statement of the issue of law or fact to be raised or controverted.”

2. Briefly Explain Basis of Contention

Section 2.309(f)(ii) requires “a brief explanation of the basis for the contention.”

3. Contentions Must Be Within the Scope of Proceeding.

Section 2.309(f)(iii) requires petitioner to “demonstrate that the issue raised . . . is within the scope of the proceeding.”

4. Contentions Must Raise a Material Issue.

Section 2.309(f)(iv) requires “that the issue raised . . . is material to the findings NRC must make to support the action . . . in the proceeding.”

5. Contentions Must be Supported by Facts.

Section 2.309(f)(v) requires “a concise statement of the alleged fact or expert opinion which supports” the contention.

6. Contentions Must Raise a Genuine Dispute of Law or Fact

Section 2.309(f)(vi) requires “sufficient information to show that a genuine dispute exists . . . on a material issue of law or fact.”

B. Spent Fuel Pools

Brief Statement of Facts and Basis for Contention

At present, the two operating nuclear power reactors at Indian Point store decades of accumulated spent fuel in water-filled storage pools located on-site. This is due to the continuing failure of the Department of Energy (DOE) and NRC to license and build a national permanent repository for spent fuel at Yucca Mountain, Nevada. Furthermore, even when built, Yucca Mountain is designed to contain only 77,000 metric tons of spent fuel. At current estimates, that amount will have been generated by 2010 and, if re-licensed, Indian Point will continue to produce spent fuel many more years that will not fit within the planned capacity of Yucca Mountain.

Over the years, in order to store more fuel rods, Entergy and its predecessors have placed them in an extremely dense configuration within these pools. As a consequence, the majority of the radioactive material at Indian Point is not located within the containment structures protecting the operating reactors, but within poorly protected spent fuel pools. The danger created by these storage pools in the event of an accident or terrorist attack is obvious. Indian Point is located in one of the most densely populated areas of the country, an area which includes not only New York City and much of southern New York and northern New Jersey, but also much of the State of Connecticut, within its potential exposure zone.

In recent years, many experts have recommended moving spent fuel that has cooled for at least five years from fuel storage pools into dry cask storage. Such storage is viewed as safer and more protective than the highly vulnerable fuel pools. While Entergy has proposed a dry cask plan for Indian Point, the plan would not move all of the older fuel into dry cask storage, but only enough to make room for additional spent rods created by continuing reactor operation. Thus, the plan will not result in any decrease in the density of the spent fuel rods stored in the pools, nor otherwise reduce the unacceptable risks of the existing spent fuel pool. The plan will merely allow Entergy to *increase* the total available fuel storage capacity at Indian Point while keeping the fuel pools full. The plan has significant economic benefits for Entergy, but significant safety disadvantages, because the amount of fuel in pool storage will not be reduced. In fact, the problem will be gravely exacerbated by 20 years additional accumulation of highly radioactive fuel rods.

Material Issue Within Scope of Proceeding, Supported by Facts

NRC has not properly evaluated the consequences of terrorist attack on the spent fuel storage area and it has a legal obligation to do so now as part of the scope of this relicensing proceeding. In an October, 2000, study, the NRC admitted that:

“the risk analysis in this study did not evaluate the potential consequences of a sabotage event that could directly cause off-site fission product dispersion, for example, a vehicle bomb driven into or otherwise significantly damaging the SFP [Spent Fuel Pool], even after a zirconium fire was no longer possible.”¹

The relevant facts are clear that an accident or attack could release deadly amounts of radiological material and toxic fumes. The NRC October 2000 report stated:

¹ NRC Report February, 2001, NUREG -1738, at 4-15. This report is respectfully incorporated by reference.

This reaction of zirconium and air, or zirconium and steam is exothermic (i.e., produces heat). The energy released from the reaction, combined with the fuel's decay energy, can cause the reaction to become self-sustaining and ignite the zirconium. The increase in heat from the oxidation reaction can also raise the temperature in adjacent fuel assemblies and propagate the oxidation reaction. The zirconium fire would result in a significant release of the spent fuel fission products which would be dispersed from the reactor site in the thermal plume from the zirconium fire. Consequence assessments have shown that a zirconium fire could have significant latent health effects and resulted (sic) in numbers of early fatalities.²

A Department of Energy report similarly provides factual support for the contention indicating that such a fire would release considerable amounts of cesium-137, an isotope that accounted for most of the offsite radiation exposure from the 1986 Chernobyl accident.³ Another factual report, authored by NRC itself, concludes that, in the event of a pool fire, approximately 100 percent of the pool's inventory of cesium would be released to the atmosphere.⁴

The emission of radioactive particles from a spent fuel pool accident would lead to horrific consequences. The NRC study stated that human fatalities within the first year of such an event "can be as large as for a severe reactor accident even if fuel has decayed several years."⁵ The potential quantity of radioactive fallout from this type of release could contaminate tens of thousands of acres of land.⁶

² NRC Report February, 2001, NUREG 1738 at 3-1 (internal citation omitted).

³ See US Department of Energy, Health and Environmental Consequences of the Chernobyl Nuclear Power Plant Accident, DOE/ER-0332 (Washington, DC: DOE, June 1987). This report is respectfully incorporated by reference.

⁴ See V L Sailor et al, Severe Accidents in Spent Fuel Pools in Support of Generic Safety Issue 82, NUREG/CR-4982 (Washington, DC: NRC, July 1987). This report is respectfully incorporated by reference.

⁵ See NRC Report February, 2001, NUREG 1738 at 3-34.

⁶ See V L Sailor et al, Severe Accidents in Spent Fuel Pools in Support of Generic Safety Issue 82, NUREG/CR-4982 (Washington, DC: NRC, July 1987).

The concerns raised by these reports find further support in the recent National Academy of Science (NAS) study regarding the risks posed by spent fuel pools.⁷ As the NRC is aware, the NAS Study concluded that a successful terrorist attack on spent fuel pools was possible and recommended an independent assessment of current security measures.

Accordingly, NRC has an affirmative legal obligation in the course of this proceeding to consider the consequences to human health and safety and the environment from an accident or attack on the accumulated stored fuel in a storage system that poses obvious risks.

C. Evacuation Protocols Are Insufficient

Brief Statement of Facts and Basis for Contention

The emergency planning area for Indian Point includes plans covering both a 10-mile radius emergency planning zone (“EPZ”) and a separate 50-mile radius ingestion pathway EPZ. The 50-mile radius EPZ includes substantial portions of the State of Connecticut, including its largest city, Bridgeport, and its most populous county, Fairfield. The immediate consequences of an evacuation order would affect approximately one-third of the population of Connecticut.

In 2003, James Lee Witt, the former director of the Federal Emergency Management Agency (FEMA), issued a report detailing the deficiencies in the emergency evacuation plan for the Indian Point EPZ. Mr. Witt concluded that safe evacuation of the area surrounding Indian Point is highly unlikely, if not impossible.⁸

⁷ National Research Council of the Nat'l Academies, Safety and Security of Commercial Spent Nuclear Fuel Storage: Public Report 17, 40 (2006). This report is respectfully incorporated herein by reference.

⁸ James Lee Witt Associates, Review of Emergency Preparedness of Areas Adjacent to Indian Point and Millstone (2003). This report is respectfully incorporated by reference.

In the past, the NRC has failed to evaluate evacuation protocols as part of the NEPA process for a license extension application. This omission is unacceptable, and would constitute a patent violation of NEPA, if it were allowed in the consideration of Indian Point's relicensing application.

Material Issue Within Scope of Proceeding, Supported by Facts

Under NEPA, a reviewing agency is required to consider the impact on the environment resulting from the total effects of the contemplated action and other past, present, and "reasonably foreseeable" future actions. See 40 C.F.R. 1508.7 (1990). Furthermore, NEPA mandates that federal agencies contemplating "major federal actions significantly affecting the quality of the human environment," 42 U.S.C. § 4332(2)(C), are obligated to include in the recommendation or report on the anticipated action an environmental impact statement ("EIS"), as "evidence that an agency has considered the reasonably foreseeable environmental effects of a proposed major action before making a decision to take the action." *Town of Orangetown v. Gorsuch*, 718 F.2d 29, 34 (2d Cir. 1983), *cert. denied*, 465 U.S. 1099 (1984).

Thus as part of this relicensing proceeding, NRC must identify and discuss all anticipated adverse impacts in a clear and comprehensive fashion, including any adverse unavoidable environmental effects resulting from the implementation, alternatives to the proposed action, the relationship between short-term uses and the long-term maintenance of the environment, and any irretrievable commitments of resources involved in the proposed action. § 4332(2)(C). Such a detailed statement "insures the integrity of the agency process by forcing it to face those stubborn, difficult-to-answer objections without ignoring them or sweeping them under the rug" and serves as an

"environmental full disclosure law so that the public can weigh a project's benefits against its environmental costs." *Sierra Club v. United States Army Corps of Eng'rs* (Sierra Club II), 772 F.2d 1043, 1049 (2d Cir. 1985); *see also Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349, (1989).

It is unacceptable for the NRC to say that emergency planning is the domain of the Federal Emergency Management Agency ("FEMA") and thereby decline to examine the environmental impacts resulting from the need to evacuate citizens from the EPZ or the impacts of a deficient evacuation plan and process. The emergency evacuation plan is a central and critical element of the NRC's reactor permit and regulatory program. Thus, the NRC's review of the potential impacts resulting from operation of two nuclear reactors, three spent fuel pools, and dry cask storage facility for an additional 20 years must include an analysis of the impacts of the emergency evacuation plan for Indian Point, and whether it is meaningful and effective.

This is particularly true because an accident or attack at the Indian Point facility would not only result in a potential catastrophe for the local population, but would have far reaching downwind effects. As was demonstrated by the 1986 disaster at the Chernobyl nuclear power station in the Ukraine, not only are people in the vicinity affected by a major release of radioisotopes, but vast areas at great distances can become significantly contaminated, creating disastrous public health and environmental consequences for communities many miles from the actual site. Further, these adverse impacts can continue for many years after the event. Consequently, in considering whether to extend the operating license for the Indian Point facility for an additional 20 years, NRC will need to address the impacts to human health and safety and the

environment of an immediate accident or attack on the entire potentially impacted downwind environment, which includes most of Connecticut, as well as the collateral impacts of the long-term relocation of up to 11.7 million people in the event of major downwind contamination.

As the United States Court of Appeals for the Second Circuit said over thirty years ago, the

requirement that the agency describe the anticipated environmental effects of proposed action is subject to a rule of reason. The agency need not foresee the unforeseeable, but by the same token neither can it avoid drafting an impact statement simply because describing the environmental effects of and alternatives to particular agency action involves some degree of forecasting. . . . It must be remembered that the basic thrust of an agency's responsibilities under NEPA is to predict the environmental effects of proposed action before the action is taken and those effects are fully known.

Scientists Institute For Public Information, Inc. v. Atomic Energy Commission, 481 F.2d 1079, 1092 (2d Cir. 1973).

What is required is a review of projects that are reasonably foreseeable. Reasonable forecasting and speculation is thus implicit in NEPA, and we must reject any attempt by agencies to shirk their responsibilities under NEPA by labeling any and all discussion of future environmental effects as 'crystal ball inquiry.' . . . But implicit in this rule of reason is the overriding statutory duty of compliance with impact statement procedures to 'the fullest extent possible.'

Scientists Institute For Public Information, Inc. v. Atomic Energy Commission, 481 F.2d 1079, 1092 (2d Cir. 1973). *See also, Natural Resources Defense Council, Inc. v. Morton*, 458 F.2d 827, 837 (D.C. Cir. 1972) (“[T]he requirement in NEPA of discussion as to reasonable alternatives does not require ‘crystal ball’ inquiry. Mere administrative difficulty does not interpose such flexibility into the requirements of NEPA as to undercut the duty of compliance ‘to the fullest extent possible.’”)

“NEPA was created to ensure that agencies will base decisions on detailed information regarding significant environmental impacts and that information will be available to a wide variety of concerned public and private actors. *Morongo Band of Mission Indians v. Federal Aviation Administration*, 161 F.3d 569, 575 (9th Cir. 1998).” *Mississippi River Basin Alliance v. Westphal*, 230 F.3d 170, 175 (5th Cir. 2000). As the Ninth Circuit recently stated:

When we consider the purposes that NEPA was designed by Congress to serve, what was done here is inadequate. Congress wanted each federal agency spearheading a major federal project to put on the table, for the deciding agency's and for the public's view, a sufficiently detailed statement of environmental impacts and alternatives so as to permit informed decision making. The purpose of NEPA is to require disclosure of relevant environmental considerations that were given a "hard look" by the agency, and thereby to permit informed public comment on proposed action ...

Lands Council v. Powell, 379 F.3d 738 (9th Cir. 2004). Consequently, NRC has an affirmative obligation to evaluate the impact of the existing flawed emergency evacuation plans in the overall review of this relicensing application.

VI. CONCLUSION

The NRC is obligated by law to complete a thorough and accurate review of the proposed license application and to take a "hard look" at the cumulative adverse impacts of this project before approving an extension of the operating license. Foremost among the critical risks are the problems inherent in determining whether a nuclear power station can safely operate for twenty years beyond its original design specifications, the grave risks resulting from an additional 20 years accumulation of spent nuclear fuel in poorly protected storage pools, and the need to ensure a practical and workable evacuation plan. If the NRC cannot ensure safe solutions to all of these problems, then it cannot relicense this facility.

Respectfully submitted,



RICHARD BLUMENTHAL
Attorney General, State of Connecticut

Dated: November 30, 2007

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

In the matter of

**INDIAN POINT NUCLEAR POWER STATION
LICENSE RENEWAL APPLICATION**

NOTICE OF APPEARANCE

Pursuant to 10 C.F.R. § 2.314(b) Assistant Attorney General Robert Snook gives notice of his appearance on behalf of Richard Blumenthal, Connecticut Attorney General.

The undersigned is a member in good standing of the bars of one or more Courts of the United States, including the District Court for the District of Connecticut, the Courts of Appeals for the Second Circuit, and the United States Supreme Court. The Connecticut Attorney General's address is 55 Elm Street, P.O. Box 120, Hartford, CT 06141-0120.

The relevant email address is Robert.Snook@po.state.ct.us.

By:



Robert D. Snook
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CERTIFICATE OF SERVICE

I certify that on November 30, 2007, copies of the foregoing Richard Blumenthal, Connecticut Attorney General's Hearing Request and Petition to Intervene in Indian Point Licensing Renewal Proceeding and Notice of Appearance were served on the following by first-class mail and electronic mail on the following, as indicated below:

<p>Lawrence G. McDade, Chair Atomic Safety and Licensing Board Panel Atomic Safety and Licensing Board U.S. Nuclear Regulatory Commission Washington, D.C. 20555 Also by email: LGM1@nrc.gov</p>	<p>Kaye D. Lathrop Atomic Safety and Licensing Board Panel Atomic Safety and Licensing Board U.S. Nuclear Regulatory Commission Washington, D.C. 20555 Also by email: KDL2@nrc.gov</p>
<p>Richard E. Wardwell Atomic Safety and Licensing Board U.S. Nuclear Regulatory Commission Washington, D.C. 20555 Also by email: REW@nrc.gov</p>	<p>Michael J. Delaney, V.P. – Energy New York City Economic Development Corp. 110 William Street New York, NY 10038 Also by email: mdelaney@nycedc.com</p>
<p>Sherwin E. Turk, Esq. Lloyd B. Subin, Esq. Beth N. Mizuno, Esq. Atomic Safety and Licensing Board Panel U.S. Nuclear Regulatory Commission Washington, D.C. 20555 Also by email: sbt@nrc.gov; lbs3@nrc.gov; bnm2@nrc.gov</p>	<p>Martin J. O'Neill, Esq. Kathryn M. Sutton, Esq. Paul M. Bessette, Esq. Mauri T. Lemoncelli, Esq. Morgan, Lewis & Bockius, LLP 1111 Pennsylvania Ave. N.W. Washington, D.C. 20004 Also by email: martin.oneill@morganlewis.com pbessette@morganlewis.com ksutton@morganlewis.com</p>
<p>Susan H. Shapiro, Esq. 21 Perlman Drive Spring Valley, NY 10977 Also by email: mbs@ourrocklandoffice.com</p>	<p>Office of Commission Appellate Adjudication U.S. Nuclear Regulatory Commission Washington, D.C. 20555 Also by email: OCAAMAIL@nrc.gov</p>

<p>Anthony Z. Roisman, Esq. 84 East Thetford Road Lyme, NH 03768 Also by email: aroisman@nationallegalscholars.com</p>	<p>Arthur J. Kremer, Chairman New York AREA 347 Fifth Avenue, Suite 508 New York, NY 10016 Also by email: aikremer@rmfpc.com kremer@areaalliance.org</p>
<p>Office of the Secretary Rulemakings and Adjudications Staff U.S. Nuclear Regulatory Commission Washington, D.C. 20555 Also by email: HEARINGDOCKET@nrc.gov</p>	<p>William C. Dennis, Esq. Assistant General Counsel Entergy Nuclear Operations, Inc. 440 Hamilton Avenue White Plains, NY 10601 Also by email: wdennis@entergy.com</p>
<p>Sherwood Martinelli FUSE USA 351 Dyckman Street Peekskill, NY 10566 Also by email: fuse_usa@yahoo.com; roycepenstinger@aol.com</p>	<p>Manna Jo Greene Hudson River Sloop Clearwater, Inc. 112 Little Market Street Poughkeepsie, NY 12601 Also by email: Mannajo@clearwater.org</p>
<p>Zackary S. Kahn, Esq. Law Clerk Atomic Safety and Licensing Board Panel U.S. Nuclear Regulatory Commission Washington, D.C. 20555 Also by email: Z XK1@nrc.gov</p>	<p>Phillip Musegaas Staff Attorney/Policy Analyst Riverkeeper, Inc. 828 South Broadway Tarrytown, NY 10591 Also by email: phillip@riverkeeper.org</p>
<p>Office of the General Counsel U.S. Nuclear Regulatory Commission Washington, D.C. 20555-0001 Also by email: OGCMailCenter@nrc.gov</p>	



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RICHARD BLUMENTHAL
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Office of The Attorney General
State of Connecticut

Office of the Secretary
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555-0001

Attn: Rulemaking and Adjudications Staff

Re: In the matter of Indian Point Nuclear Power Station License Renewal Application.

Dear Sir or Madam:

Please find enclosed for filing in the above stated matter Richard Blumenthal, Attorney General of Connecticut's Petition for Leave to Intervene, Request for Hearing, and Contentions; and the Notice of Appearance on behalf of Attorney General Richard Blumenthal by Robert Snook, Assistant Attorney General.

Thank you for your attention to this matter.

Sincerely

A handwritten signature in cursive script that reads "Robert Snook".

Robert Snook
Assistant Attorney General

Enclosures

cc: see attached Certificate of Service